Instructor Guide to Unit Four:
**Disaster Medical Operations
Part One**

1.   The goal of this unit is to understand how certain medical conditions are grave and need to be treated immediately through the understanding and implementation of a triage system.

2. This is the content for Unit Four:

   a. Treatment of life-threatening conditions
   b. Opening the airway exercise
   c. Controlling bleeding exercise
   d. Controlling shock exercise
   e. Triage
   f. Conducting Triage exercise

3. Supplies needed for Unit Four:
   - LCD projector
   - Computer linked to LCD projector
   - Computer disk containing Unit Four power point presentation
   - Instructor Guide for Unit Four
   - Participant's Manual for CERT

4. Instructional staffing requirements:
     One instructor is required for this unit. Team teaching is encouraged.
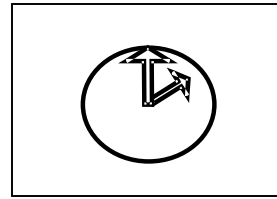
5. Unit Four is scheduled for two hours.

This is the suggested time-line:

   a. 30 minutes
   b. 20 minutes
   c. 20 minutes
   d. 20 minutes
   e. 15 minutes
   f. 15 minutes
   _____

   120 minutes

     The clock is found throughout the instructor guide it indicates how many minutes it is suggested be spent on each subject area.
       Time spent on each unit can be maneuvered by dropping content and referring to its placement in the take-home materials. This permits flexibility on the part of the instructor and encourages participants to question or discuss course matters. It also holds the instructor to the time limit for the unit without expecting participants to stay overtime or to have instructors who follow to give up their time.
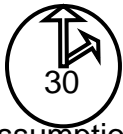
30 The need for disaster medical operations is based on two assumptions. First, the number of victims will exceed the local capacity for treatment. Second, survivors will assist others, they will do whatever they know how to do. If they are going to do the greatest good, they need to know lifesaving or post-disaster survival techniques.

In a disaster, there may be more victims than rescuers and immediate help will not always be available. People who have Community Emergency Response training will be able to function quickly and efficiently to save lives.

There are three phases of death from trauma.
1. Death within minutes as a result of overwhelming and irreversible damage to vital organs.
2. Death within several hours as a result of excessive bleeding
3. Death in several days or weeks as a result of infection or multiple-system failure

The goal of disaster medical operations is to do the greatest good for the greatest number. In a disaster with many victims, time will be critical. CERT members will need to work quickly and efficiently to help as many victims as possible.

The first priority of medical operations is to attend to those potential killers by:

Opening the airway

Controlling excessive bleeding

Treating for shock

Community Emergency Response Training
Unit 4: Disaster Medical Operations Part 1

Community Emergency Response Training

Unit Objectives

1. Identify the "killers."
2. Apply techniques for opening airways, controlling bleeding, and treating for shock.
3. Conduct triage under simulated disaster conditions.

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Treatment of Life-Threatening Conditions

The "Killers":

• Airway obstruction

• Excessive bleeding

• Shock

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Always wear safety equipment: Helmet, goggles, gloves, mask, and boots. A timesaving technique is to wear latex gloves under your work gloves. Then, when you find a victim, you can remove your work gloves and are ready to work with the victim

20

Exercise: Opening the Airway

a. Purpose: This exercise allows you to practice using the Head-Tilt/Chin-Lift method on each other.

b. Instructions: Follow the steps below to complete this exercise:

c. Work in pairs—one person will be the victim and the other person the rescuer.

d. Victims should lie on the floor on their backs or stay in their wheelchairs and close their eyes.

e. The rescuer should use the Head-Tilt/Chin-Lift method on the victim to open the airway.

f. After the rescuer has made two or three attempts at using the Head-Tilt/Chin-Lift method, the victim and the rescuer should change roles

Treatment of Life-Threatening Conditions

Components of a respiratory system:
- Lung
- Bronchus
- Larynx
- Pharynx
- Nasal Air Passage
- Trachea
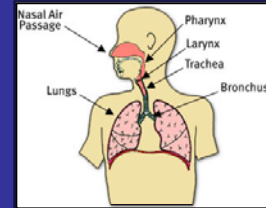
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Controlling Bleeding at
Pressure Points

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20 Exercise: Controlling Bleeding

Purpose: This exercise allows you to practice the techniques for controlling bleeding. Bleeding must be controlled as quickly as possible so as not to endanger the victim's life from blood loss.

Instructions: Follow the steps below to conduct this exercise:

You should always wear your rubber gloves, goggles, and a mask as a protection against blood-borne pathogens, such as hepatitis and human immunodeficiency virus (HIV).

Work in pairs – one person will be the victim and the other the rescuer.

Victims should lie on the floor on their backs and close their eyes.

The rescuer should use direct pressure to control bleeding from a simulated wound on the right forearm just below the elbow. The rescuer should:

- o Apply a pressure bandage.

- o Elevate the arm.

- o Repeat these two steps.

- o Repeat the two steps for speed.

3. After the rescuer has made at least three attempts at using each technique, the victim and the rescuer should change roles.

⊕ 15
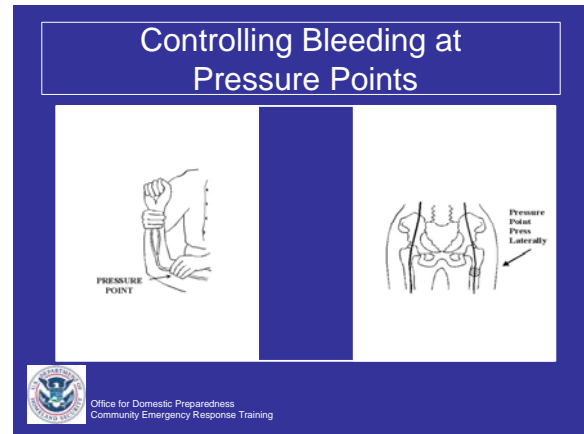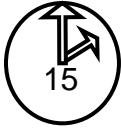
Exercise: Treating Shock

1. <u>Purpose</u>: This exercise allows you to practice the steps for treating shock.

2. <u>Instructions</u>: Follow the steps below to complete this exercise:

   a. Work in pairs of victim and rescuer.

   b. The victims should lie on the floor on their backs if possible (or stay in their wheelchairs) and close their eyes.

   c. The rescuer should treat the victim based on the scenario given by the Instructor.

   d. The victim and the rescuer should then switch roles.

Procedures for Controlling Shock

Step	Action
1	Lay the victim on his or her back. Elevate the feet 6-10 inches above the level of the heart. Maintain an open airway.
2	Control obvious bleeding
3	Maintain body temperature (e.g., cover the ground and the victim with a blanket if necessary).
4	Avoid rough or excessive handling unless the rescuer and victim are in immediate danger.

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Triage is a French term meaning "to sort." During triage, victims are evaluated, sorted by the urgency of the treatment needed, and set up for immediate or delayed treatment. Triage occurs as quickly as possible after a victim is located or rescued. During triage, victims' conditions are evaluated and the victims are prioritized and labeled (tagged) into three categories: immediate, delayed, or dead

Exercise: Conducting Triage

1. Purpose: This exercise is intended to allow you to practice conducting triage a high-pressure situation.

2. Instructions: Follow the steps below to complete this exercise:

   a. Work in 6-person groups. In each group, three participants will act as victims, and three will act as search and rescue team members, two rescuers and one runner.

   b. The "victims" should select a card from the Instructor and tape it to their shirts.

   c. The victims should arrange themselves within the designated "disaster" area.

   d. The three "rescuers" will have 5 minutes to:

   o Conduct triage on each of the victims and determine how each should be tagged and treated.

   o Document the number of victims in each category of triage: immediate, delayed, dead.

If your CERT class continues on the same day, take your break and return to this classroom. Or

If your CERT class continues on another day (next week or next month) Your **Homework Assignment** is to read Unit Five: Disaster Medical Operations Part Two.
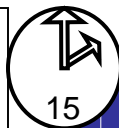
Triage

- Immediate (I)
- Delayed (D)
- Dead (DEAD)

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Triage Pitfalls

- No team plan, organization, or goal
- Indecisive leadership
- Too much focus on one injury
- Treatment (rather than triage) performed

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Instructor Guide to Unit Five:
Disaster Medical Operations
Part Two

1.   The goal of this unit is to understand medical operations from a public health perspective, learn how to establish treatment areas and do basic medical treatments.

2. This is the content for Unit Five:

a. Public Health Considerations
b. Functions of Disaster Medical Operations
c. Establishing Treatment Areas
d. Conducting Head-to-Toe Assessments
e. Closed-Head, Neck, and Spinal Injuries
f. Exercise: Conducting Head-to-Toe Assessments
g. Treating Burns
h. Wound Care
i. Amputations
j. Treating Fractures, Dislocations, Sprains and Strains
k. Splinting
l. Exercise: Splinting
m. Nasal Injuries
n. Treating Hypothermia

3. Supplies needed for Unit Five:
• LCD projector
• Computer linked to LCD projector
• Computer disk containing Unit Five power point presentation
• Instructor Guide for Unit Five
• Participant's Manual for CERT

4. Instructional staffing requirements:
One instructor is required for this unit. Team teaching is encouraged.
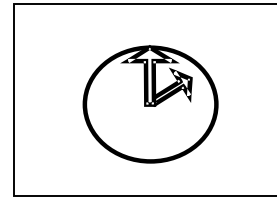
5. Unit Five is scheduled for 4 hours and 15 minutes .
This is the suggested time-line:

a. 15 minutes
b. 15 minutes
c. 15 minutes
d. 15 minutes
e. 15 minutes   15 min. break
f. 15 minutes
g. 15 minutes
h. 15 minutes   15 min. break
i. 15 minutes
j. 15 minutes
k. 15 minutes
l. 15 minutes
m. 15 minutes   15 min. break
n. 15 minutes

4 hours and 15 minutes

5 The clock is found throughout the instructor guide it indicates how many minutes it is suggested be spent on each subject area.

Time spent on each unit can be maneuvered by dropping content and referring to its placement in the take-home materials. This permits flexibility on the part of the instructor and encourages participants to question or discuss course matters. It also holds the instructor to the time limit for the unit without expecting participants to stay overtime or to have instructors who follow to give up their time.

15 minutes has been slated for the first 8 slides.

Have participants review the answers to the unit four review out loud in class as a basis for the fifth unit to follow.

Community Emergency Response Training
Unit 5: Disaster Medical Operations
Part 2

Community Emergency Response Training

Unit 4 Review

The "Killers":
- Airway obstruction
- Excessive bleeding
- Shock

All "immediates" receive airway control, bleeding control, and treatment for shock.

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Unit 4 Review

Triage involves:
- Rapid assessment.
- Rapid treatment.

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When disaster victims are sheltered together for treatment one of the public health concerns is to avoid the spread of disease. This unit will address public health concerns related to sanitation, hygiene, and water purification.

Treatment areas must be established as soon as casualties are confirmed. This unit will explain how to organize disaster medical operations and establish treatment areas.

To do the most good for the greatest amount of people, individuals who receive CERT training will be able to employ basic treatments for wounds, fractures sprains and other common injuries. This unit will build upon information learned in Part 1 of Disaster Medical Operations (Unit 4).

When disaster victims are sheltered together for treatment, public health becomes a concern. Measures must be taken, both by CERT members and programmatically, to avoid the spread of disease. Primary public health measures include: maintaining proper hygiene, maintaining proper sanitation, and purifying water if necessary.

Unit 5 Introduction

Topics:
- Public health concerns
- Organization of disaster medical operations
- Establishing treatment areas
- Conducting head-to-toe assessments
- Treating injuries

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Unit 5 Objectives

- Take appropriate measures to protect public health.
- Perform head-to-toe patient assessments.
- Establish a treatment area.
- Apply splints to suspected fractures and sprains, and employ basic treatments for other wounds.

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Public Health Considerations

- Maintain proper hygiene.
- Maintain proper sanitation.
- Purify water (if necessary).

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Maintenance of proper hygiene is critical even under makeshift conditions. Wash hands frequently using soap and water. Hand washing should be thorough, at least 12 to 15 seconds, with an antibacterial scrub if possible.
Wear a mask and goggles. If possible, wear a mask that is rated "N95."

Steps to Maintain Hygiene

- Wash hands frequently using soap and water.
- Wear latex gloves; change or disinfect after each patient.
- Wear a mask and goggles.
- Keep dressings sterile.
- Avoid contact with body fluids.

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Appropriate disposal of human waste:
   o Burying
   o Keep away from water
   o Stored in covered buckets
Use of diapers and other waste collecting pads

15

Maintaining Sanitation

- Control disposal of bacterial sources.
- Put waste products in plastic bags, tie off, and mark as medical waste.
- Bury human waste.

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Triage: The initial assessment and sorting of victims for treatment based on the severity of their injuries

Treatment: The area in which disaster medical services are provided to victims.

Transport: The movement of victims from the triage area to the treatment area. If professional help will be delayed, for efficiency of operations, victims can be transported to the treatment area by CERT members

Morgue: The temporary holding area for victims who have died as a result of their injuries.

Supply: Is a holding area for materials procured

Functions of Disaster Medical Operations

- Triage
- Treatment
- Transport
- Morgue

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Site selection for medical treatment - Because time is critical during a disaster, CERT medical operations personnel will need to select a site and set up a treatment area as soon as injured victims are confirmed. The treatment area is the location where the most advanced medical care possible will be given to victims.

The treatment area must be <u>protected and clearly marked</u> using a ground cover or tarp. A clearly marked treatment area will help people transport victims to the correct location. Signs should identify the subdivisions of the area: I for immediate care, D for delayed care, DEAD for morgue.

Patients in the treatment area should be positioned in a head-to-toe configuration with two to three feet of space between victims.

The *Immediate Care* and *Delayed Care* divisions should be relatively close to each other to allow:

-Verbal and visual communication between workers in the two areas.

-Shared access to medical supplies which should be securely stored in a central location.

-Easy transfer of patients whose status has changed.

Establish Treatment Areas

The site selected should be:
• In a safe area
• Close to (but upwind and uphill from) the hazard
• Accessible by transportation vehicles
• Expandable

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Establishing Treatment Areas

Incident Site
Command Post
Communications
Triage
Delayed
Immediate
Transportation
Morgue
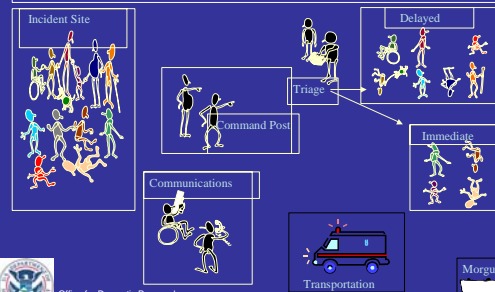
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Indicators of Injury

• Bruising
• Swelling
• Severe pain
• Disfigurement

Provide <u>immediate</u> treatment for life-threatening injuries!

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15 The first steps that you will take when working with a victim will be to conduct a triage and rapid treatment. During triage, you looked for 'the killers': airway obstruction, excessive bleeding and signs of shock. After all victims in an area have been triaged, CERT members will begin a thorough head-to-toe assessment of the victim's condition. A head-to-toe assessment goes beyond 'the killers' to try to gain more information to determine the nature of the victim's injury.

If the victim is conscious, CERT members should always ask permission to conduct the assessment. **The victim has the right to refuse treatment**.

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1. Change in consciousness.
2. Inability to move one or more body parts.
3. Severe pain or pressure in the head, neck, or back.
4. Tingling or numbness in extremities.
5. Difficulty breathing or seeing.
6. Heavy bleeding, bruising, or deformity of the head or spine.
7. Blood or fluid in the nose or ears.
8. Bruising behind the ear.
9. "Raccoon" eyes (bruising around eyes).
10. "Uneven" pupils.
11. Seizures.
12. Nausea or vomiting.
13. Victim found under collapsed building material or heavy debris.

Conducting Victim Assessment

A head-to-toe assessment:
- Determines the extent of injuries and treatment.
- Determines the type of treatment needed.
- Documents injuries.

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Head-to-Toe Assessment

1. Head
2. Neck
3. Shoulders
4. Chest
5. Arms
6. Abdomen
7. Pelvis
8. Legs
9. Back

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Closed-Head, Neck, and Spinal Injuries

- The main objective when CERT members encounter suspected injuries to the head or spine is to do no harm.
- Minimize movement of the head and spine, while treating any other life-threatening conditions.
- Review the 13 possible signs of closed-head, neck and spinal injuries

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. Exercise: Conducting Head-to-Toe Assessments

A. Purpose: This exercise allows you to practice conducting head-to-toe assessments.

B. Instructions: Follow the steps below to complete this exercise:

1. Work in three-person teams of one victim and two rescuers.

2. The victim should lie on the floor on their back and with closed eyes. If the victim can not lie on the floor, remain in their chair or wheelchair with closed eyes.

3. The rescuers should conduct a head-to-toe assessment on the victim following the procedures explained in this unit.

4. After the rescuers have made at least two observed head-to-toe assessments, the victim and rescuers should change roles.

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Exercise

• Conducting head-to-toe assessments

• After the rescuers have made at least two observed head-to-toe assessments, the victim and rescuers should change roles

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⟳ 15   The objectives of <u>first aid treatment for burns</u> are to: cool the burned area and reduce the risk of infection. Burns may be caused by heat, chemicals, electrical current, and radiation.

Layers of Skin

- Epidermis
- Dermis
- Subcutaneo[us]

Epidermis
Dermis
Subcutaneous Layer

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1. First Degree Burn - The epidermis, or outer layer of skin, contains nerve endings and is penetrated by hairs.

2. Second Degree Burn - The dermis, or middle layer of skin, contains blood vessels, oil glands, hair follicles, and sweat glands.
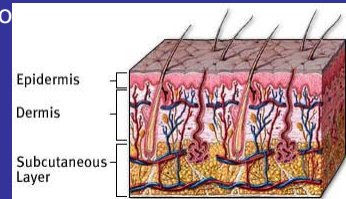
3. Third Degree Burn - The subcutaneous layer, or innermost layer, contains blood vessels and overlies the muscle and skin cells.

Classification of Burns

- First degree
- Second degree
- Third degree

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⟳ 15   Open Wounds- can be classified as: incision, avulsion, puncture, abrasion and laceration. These are all different types of wounds to the skin that produce bleeding.

Wound Care

- Control bleeding
- Prevent secondary infection
- Clean wound—<u>don't</u> scrub
- Apply dressing and bandage

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The objective of dealing with the many types of open wounds (incisions, avulsions, punctures, abrasions, and lacerations) is to focus on cleaning and bandaging to control infection

Rules of Dressing

1. In the absence of active bleeding, remove dressing and flush, check wound at least every 4-6 hours.
2. If there is active bleeding, redress <u>over</u> existing dressing and maintain pressure and elevation.

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An amputation is the process of cutting off a limb or other appendage, either by surgical operation or by traumatic injury. The objective in treating an amputation is to control bleeding and treating for shock

Treating Amputations

- Control bleeding
- Treat for shock
- Save tissue parts, wrapped in clean cloth
- Keep tissue cool
- Keep tissue with the victim

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Impaled Objects - You may also encounter some victims who have foreign objects lodged in their bodies, usually as the result of flying debris during the disaster

Treating Impaled Objects

Impaled Objects:
- Immobilize.
- Don't move or remove.
- Control bleeding.
- Clean and dress wound.
- Wrap.

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15   It is difficult to distinguish among fractures, sprains, or strains, if you are uncertain of the type of injury, treat the injury as a fracture which is a complete break, a chip, or a crack in a bone. There are several types of fractures: closed, open, displaced and nondisplaced.

An open fracture is a broken bone with some kind of wound that allows contaminants to enter into or around the fracture site. Therefore, they are a higher priority and need to be checked more frequently

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Treating Fractures, Dislocations, Sprains, and Strains

- Objective: Immobilize the injury and joints above and below the injury.
- If questionable, treat as a fracture.

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Treating an Open Fracture

- Do not draw exposed bones back into tissue.
- Do not irrigate wound.

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Treating an Open Fracture

DO:
- Cover wound.
- Splint fracture without disturbing wound.
- Place a moist 4" x 4" dressing over bone end to prevent drying.

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15 An open fracture is a broken bone with some kind of wound that allows contaminants to enter into or around the fracture site. Therefore, they are a higher priority and need to be checked more frequently.

Strains – involve a stretching and/or tearing of muscles or tendons. Strains most often involve the muscles in the neck, back, thigh, or calf. In some cases, strains may be difficult to distinguish from sprains or fractures. When uncertain whether an injury is a strain, sprain, or fracture, treat the injury as if it is a fracture.

A splint is a device made of rigid material used to keep a broken bone or injured body part from moving. Splinting is the most common procedure for immobilizing an injury. There are several forms of material you can use to create a splint in times of emergency

Exercise: Splinting

1. Instructions: Follow the steps below to complete this exercise which will allow you to practice the procedures for splinting:

2. Working in three-person teams, one person will be the victim and two persons will be the rescuers. Victims should lie on the floor on their backs or sit in a chair. The rescuer should apply a splint on the victim's upper arm using the procedure demonstrated earlier. Then, the rescuer should apply a splint to the victim's lower leg.

3. The victim and the rescuers should change roles.

Signs of Sprain

- Tenderness at injury site
- Swelling and/or bruising
- Restricted use or loss of use

Immobilize and elevate

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Guidelines for Splinting

1. Support the injured area.
2. Splint injury in the position that you find it.
3. Don't try to realign bones.
4. Check for color, warmth, and sensation.
5. Immobilize above and below the injury

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The methods for controlling nasal bleeding include:

1. Pinching the nostrils together.

2. Putting pressure on the upper lip just under the nose.

15

Hypothermia is a condition that occurs when the body's temperature drops below normal. Hypothermia may be caused by exposure to cold air or water or by inadequate food combined with inadequate clothing and/or heat, especially in older people.

Because hypothermia can set in within only a few minutes, you should treat victims who have been rescued from cold air or water environments by:

1. Removing wet clothing.
2. Wrapping the victim in a blanket or sleeping bag and covering the head and neck.
3. Protecting the victim against the weather.
4. Providing warm, sweet drinks and food to conscious victims.
5. **Do not** offer alcohol or massage.
6. Placing an unconscious victim in the recovery position.
7. Placing the victim in a warm bath if the victim is conscious.
8. **Do not** allow the victim to walk around even when he or she appears to be fully recovered.
9. If the victim must be moved outdoors, you should cover the victim's head and face.

Nasal Bleeding

- Causes:
  - Blunt force
  - Skull fracture
  - Nontrauma-related conditions
- Blood loss can lead to shock.
- Victims may become nauseated and vomit if they swallow blood.

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Symptoms of Hypothermia

Primary signs and symptoms:
- A body temperature of 95º Fahrenheit (37º Celsius) or less
- Redness or blueness of the skin
- Numbness accompanied by shivering

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Symptoms of Hypothermia

At later stages, hypothermia will be accompanied by:
- Slurred speech.
- Unpredictable behavior.
- Listlessness.

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1. If your CERT class continues on the same day, take your break and return to this classroom.

2. If your CERT class continues on another day (next week or next month) your **Homework Assignment** is to:

> a. Read and familiarize yourself with Unit 6: Light Search and Rescue Operations before the next session.

> b. Obtain a blanket for use during Unit 6.

Community Emergency Response Training

Instructor Guide to Unit Six:
Light Search and Rescue

1. The goal of this unit is to focus on the components of an effective search and rescue operation—size-up, search, and rescue—and the methods and techniques that rescuers can use to locate and safely remove victims.

2. This is the content for Unit Six:

a. Search and rescue size-up
b. Exercise: gathering facts
c. Exercise: search and rescue size-up
d. Conducting search operations
e. Conducting rescue operations
f. Exercise: removing victims

3. Supplies needed for Unit Six:
- LCD projector
- Computer linked to LCD projector
- Computer disk containing Unit Six power point presentation
- Instructor Guide for Unit Six
- Participant's Manual for CERT

4. Instructional staffing requirements: One instructor is required for this unit. Team teaching is encouraged.
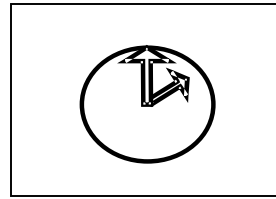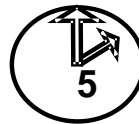

5. Unit Six is scheduled for one-and-one-half hours.

This is the suggested time-line:

a. 10 minutes
b. 10 minutes
c. 15 minutes
d. 20 minutes
e. 20 minutes
f. 15 minutes

90 minutes

The clock is found throughout the instructor guide it indicates how many minutes it is suggested be spent on each subject area.

Time spent on each unit can be maneuvered by dropping content and referring to its placement in the take-home materials. This permits flexibility on the part of the instructor and encourages participants to question or discuss course matters. It also holds the instructor to the time limit for the unit without expecting participants to stay overtime or to have instructors who follow to give up their time.

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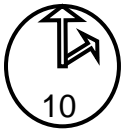
Experience from previous disasters has shown that immediately after almost every disaster, the first response to trapped victims is by spontaneous, untrained, and well-intentioned persons who rush to the site of a collapse in an attempt to free the victims. More often than not, these spontaneous rescue efforts result in serious injuries and compounded problems. However well-meaning, rescue efforts should be planned and practiced in advance.

Community Emergency Response Training
Unit 6: Light Search and Rescue

Community Emergency Response Training

Unit Objectives

- Identify sizeup requirements for potential search and rescue situations.
- Describe the most common techniques for search a structure.
- Use safe techniques for debris removal and victim extrication.
- Describe ways to protect rescuers during search and rescue.
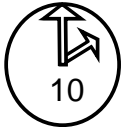
Community Emergency Response Training

Search and Rescue Operations

- Size-up
- Search involves:
  - Locating victims
  - Documenting location
- Rescue involves procedures and methods to extricate victims

Community Emergency Response Training

(10)   Search and rescue requires size-up at the beginning of the operation and repeatedly as long as the operation continues. Size-up is a 9-step process that was presented in Unit 2. This section will focus on size-up as it relates to search and rescue operations.

Can a search and rescue be safely attempted by CERT members?

> a. If yes, proceed with the checklist.
>
> b. If no, do not attempt a search and rescue.
>
> c. Are there other, more pressing needs at the moment?
> If yes, list.

There are check lists in this unit for participants to use as they decide to search and rescue.

Decision To Attempt Rescue

- Risk involved to the rescuer
- Greatest good for greatest number of people

Community Emergency Response Training

Goals of Search and Rescue

- Rescue greatest number in the shortest amount of time
- Rescue lightly trapped victims first

Community Emergency Response Training

Effective Search and Rescue

- Effective sizeup
- Rescuer safety
- Victims safety

Community Emergency Response Training

Gather Facts

<u>The time of the event and day of the week</u>. At night, more people will be in their homes, so the greatest need for search and rescue will be in residential settings. Conversely, during the day, people will be at work, so the need will be in commercial buildings.

2. <u>Some emergency services are not available</u>—or not available in the same numbers—during the evenings or on weekends. Search and rescue operations may also be affected by where people are located in their homes and the amount of daylight available.

3. <u>The type of structure</u>. The design of the structure may indicate the likely number of victims and their locations.

4. <u>Construction type</u>. Some types of construction are more susceptible to damage than others.

5. <u>Weather</u>. Severe weather will have an effect on victims and rescuers and will hamper rescue efforts. Forecasts of severe weather will be a limiting factor on search and rescue efforts.

6. <u>Hazards</u>. Knowledge of other potential hazards in the general and immediate areas is important to search and rescue efforts. Time lost trying to locate and shut off utilities, for example, can have a big impact in terms of loss of life.

CERT Search and Rescue Sizeup

1. Gather Facts
2. Assess Damage
3. Consider Probabilities
4. Assess Your Situation
5. Establish Priorities

6. Make Decisions
7. Develop Plans of Action
8. Take Action
9. Evaluate Progress

Community Emergency Response Training

Step 1: Gather Facts

Consider the:
◆ Time of event and day of week.
◆ Type of structure.
◆ Construction type.
◆ Weather.
◆ Hazards.

Gather facts <u>accurately!</u>

Community Emergency Response Training

Step 2: Assess and Communicate Damage

The CERT mission changes if:

◆ Damage is light.
◆ Damage is moderate.
◆ Damage is heavy.

Consider structure type and age.
Never enter a structure with heavy damage!

Community Emergency Response Training

.**Exercise: Gathering Facts**

1.   Purpose: This exercise is an interactive activity to give you the opportunity to consider some of the facts that CERT search and rescue teams will need to gather during size-up.

2.   Instructions: Read Scenario 5-1 on the following page. Brainstorm the six questions that follow the scenario.

Search and Rescue

Slight Damage

Community Emergency Response Training

Search and Rescue

Moderate Damage

Community Emergency Response Training

Step 2:   Assess and Communicate Damage – There are general guidelines for assessing damage. When in doubt about the condition of a building, always use the more restrictive assessment. For example, if you are unsure about whether a building is moderately or heavily damaged, assume heavy damage. The CERT mission changes depending on the amount of structural damage

Search and Rescue

Heavy Damage

Community Emergency Response Training

Step 3: Consider Probabilities – Because CERT members will be working in such close proximity to the dangerous situation, considering what will probably happen and what could happen are of critical importance. Identify potentially life-threatening hazards.

Step 4: Assess Your Situation **–** Size-up is a building process, with each step building upon the previous steps until the decision is made to begin the search and rescue operation (or that the situation is unsafe). Assessing resources is extremely important to search and rescue operations. Draw on everything you've learned from steps 1 through 3 to assess your situation to determine:

a. Whether the situation is safe enough to continue.

b. The risks that rescuers will face if they continue.

c. What resources will be needed to conduct the operation safely (and what resources are available).

Step 5: Establish Priorities – After evaluating the situation, the next step is to determine what should be done and in what order.

1. The safety of CERT members is always the first priority and will dictate some of your other priorities.

Search and Rescue sizeup

- Personnel
- Tools
- Equipment

Community Emergency Response Training

Safety Considerations

- Make <u>rescuer safety</u> your primary concern.
- Use a buddy system.
- Be alert for hazards.
- Use safety equipment.
- Rotate teams.

Teamwork=Success

Community Emergency Response Training

Conducting Search Operations

Inspect area by:
1. Employing search techniques based on size-up.

2. Locating potential victims.

Community Emergency Response Training

Exercise: Search and Rescue Size-up

1. Purpose: This exercise is an interactive activity to give you an opportunity to practice some of the thinking processes involved in planning and search and rescue size-up.

a. The brainstorming required will help you to begin to assess your neighborhood or workplace in terms of building structures, hazardous materials, safety precautions that need to be taken, etc.

b. The exercise will be based on several different types of local buildings (one for each small group) for the most probable type of disaster that the community will face.
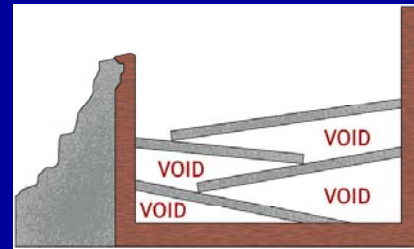
2. Instructions: Use the following steps to complete this exercise:

a. Given the disaster and the specific building assigned to your group, answer the following questions:

- o What are the pertinent facts that must be gathered?

- o What kind of prediction can you make regarding damage, based on the incident and the building construction?

- o What probable search and rescue problems can you identify?

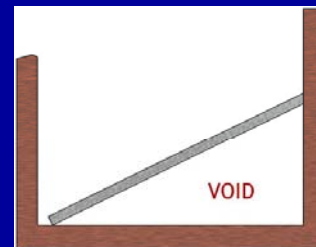- o What specific safety considerations can you identify?

b. Select a spokesperson to present your group's responses to the class.
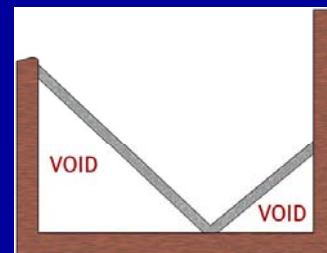

Conducting Search Operations

Conducting Search Operations

Conducting Search Operations

When the decision is made to initiate search operations, CERT members must inspect the area assigned by the CERT Area Team Leader.   The search operation involves two processes:

- Employing search techniques based on the size-up

- Locating potential victims

Locating Potential Victims – The first step in locating potential victims is to conduct a size-up of the situation inside the structure to gather more precise information about damage and to develop priorities and plans. The data gathered will provide more information about areas of entrapment or voids. There are several types of voids: pancake void, lean-to-void, "V"-void and individual voids.
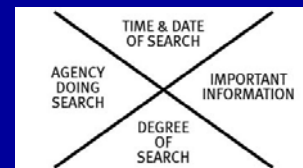
Conducting Search Operations

Individual Voids

Community Emergency Response Training

Effective Search Methodology

◆ Indicates rescuer location
◆ Prevents duplication of effort

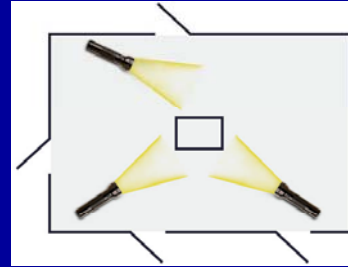Community Emergency Response Training

Search Methods

1. Call out to victims.
2. Use systematic search pattern.
3. Stop frequently to listen.
4. Triangulate.
5. Mark searched areas to document results.
6. Report results.

Community Emergency Response Training

Some of this information may be known through planning, but CERT members may need to get some information by talking to bystanders or those who are familiar with the structure. Bystanders may be confused by the event. They may tend to exaggerate potential numbers or may not even remember the event accurately. Gather as much information as you can, though, because it will be useful for planning search priorities and implementing the search. CERT members should ask questions when talking with these individuals

Conducting Search Operations

Conducting Rescue Operations

Primary Functions:
- Creating safe rescue environment
  - Lift objects out of the way.
  - Use tools to move objects.
  - Remove debris.
- Triaging or stabilizing victims
- Removing victims

Creating a Safe Environment

Goals:
- Maintain rescuer safety.
- Triage in lightly and moderately damaged buildings.
- Evacuate victims quickly from moderately damaged buildings-minimize injury.

Conducting Rescue Operations

A. Rescues involve three primary functions:

    1. Creating a safe rescue environment by lifting objects out of the way, using tools to move objects and removing debris.

    2. Triaging or stabilizing victims.

    3. Removing victims in a moderately damaged building. Call in the medical team in a lightly damaged building.

B. Creating a Safe Environment – There are three goals for all rescue operations:

    1. To maintain rescuer safety

    2. To triage in lightly and moderately damaged buildings

    3. To evacuate victims as quickly as possible from moderately damaged buildings while minimizing additional injury

C. None of these goals can be achieved without creating as safe an environment as possible before attempting rescue. There are, therefore, certain precautions that rescuers must take to minimize risk.

Precautions to Minimize Risk

Safe Environment:
- Know your limitations
- Follow safety procedures.
- Remove debris by:
  - Leveraging.
  - Cribbing.

Community Emergency Response Training

Removing Victims

Types of victim removal include:
- Self-removal or assist
- Lifts and drags

Allow victims to extricate themselves when possible.

Community Emergency Response Training

Extrication Method

Depends upon:
- General stability of immediate environment.
- Number of rescuers available.
- Strength and ability of rescuers.
- Condition of victim.

Community Emergency Response Training

Exercise: Removing Victims

A. Purpose: This exercise will provide you with an opportunity to practice the removal of victims from a collapse situation, using leveraging/cribbing and drags and carries. You will be assigned into groups and assigned to do a room search, locate victims, and remove the victims.

B. Instructions: Use the following steps to complete this exercise:

1. Enter your assigned "collapse site" room, do a room search.

2. Locate the victims.

3. Use leveraging and cribbing procedures to free them.

4. Use appropriate lifts and drags to remove the victims from the room (and, if possible, from the building).

5. Rotate roles so that there are two new victims. Repeat the exercise until everyone has had an opportunity to practice being a rescuer.

1. If your CERT class continues on the same day, take your break and return to this classroom.

2. If your CERT class continues on another day (next week or next month) your **Homework Assignment** is to:

o Read and become familiar with Unit Seven: CERT Organization before the next session.

Community Emergency Response Training

Instructor Guide to Unit Seven:
CERT Organization

1. The goal of this unit is to provide participants to understand the organizational patterns used in CERT when they are activated as a team. It links CERT to the emergency management response and recovery structure.

2. This is the content for Unit Seven:

    a. The goals of on-scene emergency management
    b. The goals of CERT organizational structure
    c. Incident Command
    d. CERT Decision Making
    e. CERT Documentation
    f. Activity

3. Supplies needed for Unit Seven:
    * LCD projector
    * Computer linked to LCD projector
    * Computer disk containing Unit Seven power point presentation
    * Instructor Guide for Unit Seven
    * Participant's Manual for CERT

4. Instructional staffing requirements:
    One instructor is required for this unit. Team teaching is encouraged.
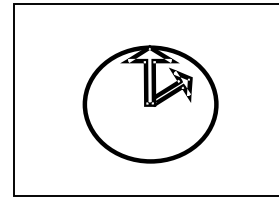
5. Unit seven is scheduled for sixty minutes.

This is the suggested time-line:

    a. 10 minutes
    b. 5 minutes
    c. 15 minutes
    d. 5 minutes
    e. 10 minutes
    f. 15 minutes

    60 minutes total

5   The clock is found throughout the instructor guide it indicates how many minutes it is suggested be spent on each subject area.

Time spent on each unit can be maneuvered by dropping content and referring to its placement in the take-home materials. This permits flexibility on the part of the instructor and encourages participants to question or discuss course matters. It also holds the instructor to the time limit for the unit without expecting participants to stay overtime or to have instructors who follow to give up their time.
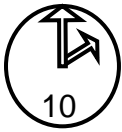
Ten minutes are slated for the first three slides.

Community Emergency Response Teams are formed by community members and are designed to prepare individuals to help themselves, their families and neighbors in the event of a catastrophic disaster. CERT members receive basic training in disaster survival and rescue skills which improve the ability of citizens to survive until responders or other assistance arrives.

Even if participants do not join a CERT team they will leave the training with basic disaster survival and rescue skills to help them, members of their household and work teams.

CERT roles in recent disasters are covered on page 3 of 23 in Unit Seven of the Participant's Manual.

As volunteers, CERT members functioning in emergency services are generally protected by "Good Samaritan" laws that protect people who provide emergency care in a prudent and reasonable manner.

Know the state laws for good Samaritans for your area.

Unit Seven
CERT Organization

Community Emergency Response Training

Overview and Objectives

- This unit explains the organizational patterns used in CERT
- It explains how it fits into the emergency management response and recovery structure

- Describe CERT Organization
- Identify how CERT personnel interrelate with the Incident Command System
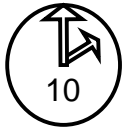- Explain CERT documentation requirements

Community Emergency Response Training

On-Scene Emergency Management

- Maintain the safety of disaster workers
- Provide clear leadership and organizational structure
- Improve the effectiveness of rescue efforts

Community Emergency Response Training

(10)

CERT organizational framework is flexible, it can expand or contract depending on the on-going assessment priorities determined by the IC, and people and resources available. This expansion and contraction helps ensure rescuer safety, doing the greatest good for the greatest number, manageable span of control and accountability of personnel.

.   CERT Incident Commanders must continually prioritize response activities based on the team's capability and training and the principle that rescuer safety is the number-one concern. CERT functional leadership assigns activities and accounts for team members. CERT team members work in the buddy system and respond based on their size-up of the situations that they encounter.

The basic ICS structure is established by the person who arrives first to the scene, who becomes the Incident Commander. Initially, the Incident Commander may handle all of the command positions shown in the visual, but as the incident evolves, may assign personnel as the operations chief, logistics chief, planning chief or administration chief.

CERT Organizational Structure Goals

- Effective communication
- Common terminology
- Well defined management structure
- Accountability
- Action plans
- Manageable span of control

Community Emergency Response Training

CERT Organizational Structure Goals in a Disaster

- Identify scope of incident
- Determine strategy
- Deploys teams and resources
- Documents actions and results

Community Emergency Response Training

Incident Command System

- Organizational system for emergency management, fire departments and law enforcement agencies.
- Is flexible
- Ensures rescuer safety
- Manageable span of control
- Accountability of personnel
- Do the greatest good
                    for the greatest number

Community Emergency Response Training
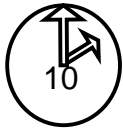
10   The ICS system is also found in a chart in Unit Seven, page 8 of 23 Visual One

As the incident expands, it may be necessary to assign other personnel in each section to handle specific aspects of the response while maintaining an effective span of control.

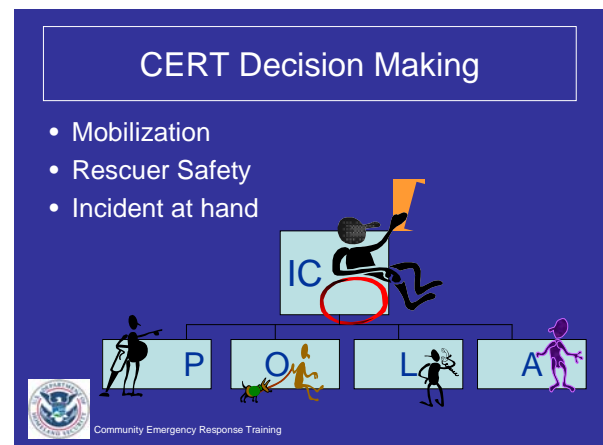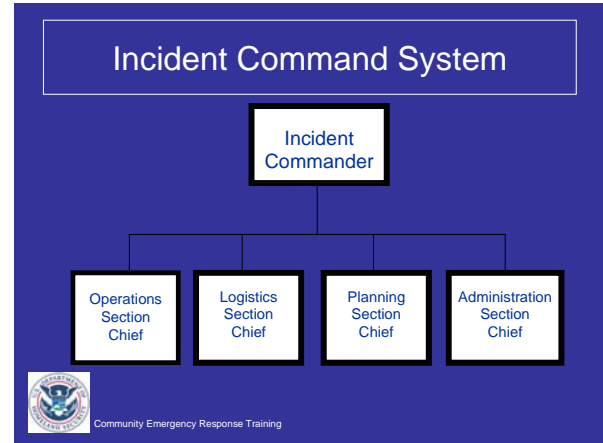Use the chart in Unit Seven, pages 11, 12 and 13 to highlight this slide.

CERT Mobilization – Following the incident, CERT members take care of themselves, their families, their homes, and their neighbors.

If the Standard Operating Procedure calls for self-activation, CERT members proceed to the pre-designated staging area with their disaster supplies. The first CERT member at the staging area becomes the initial IC for the response. As other CERT members arrive, the CERT IC may pass leadership to someone more qualified.

Rescuer safety is paramount.

It is vital to document and communicate information about the disaster situation and resource status. Efficient flow of information makes it possible for resources to be deployed effectively and for professional emergency services to be applied appropriately. Under the CERT organization, each level of authority has documentation responsibilities:

Pages 15 through 21 of Unit Seven have documentation forms commonly used by CERT teams.

Incident Command System

Incident Commander

Operations Section Chief | Logistics Section Chief | Planning Section Chief | Administration Section Chief

Community Emergency Response Training

CERT Decision Making

- Mobilization
- Rescuer Safety
- Incident at hand

IC

P   O   L   A

Community Emergency Response Training

CERT Documentation

- Need for documentation
- Each level of authority has responsibilities
- Forms of documentation
  – Damage assessment survey
  – Personnel resources form
  – Equipment resources form
  – Incident briefing
  – Message form
  – Incident status record
  – Victim treatment area record

Community Emergency Response Training

15

This activity is found in the Participant's Manual in Unit Seven on page 22 of 23.

It is good to review the activity before you present it, so you know the answers.

The discussion that occurs during this activity should help clarify the academic material presented previously.

ICS Activity

- Using your knowledge about the five Incident Command System functions, decide which function the following activities would fall. Some activities may involve more than one function to be completed.
- Work as a group.

Community Emergency Response Training

Not all CERT activities are directly during the response phase of a disaster. This slide shows how CERT members shared information about mitigation with the community as it was beginning to rebuild.

CERT Roles in recent disasters

- Northridge earthquake

- Florida hurricanes

Port Charlotte, FL, September 19, 2004 -- CERT is part of the FEMA organized "Operation Rebuild", a gathering about storm resistant construction techniques held in Port Charlotte for residents affected by Hurricane Charley.   Photographer - Mark Wolfe

Community Emergency Response Training

Announcements before the participants are dismissed:

If your CERT class continues on the same day, take your break and   return to this classroom.

Or

If your CERT class continues on another day (next week or next month) Your **Homework Assignment** is to read Unit Eight: Disaster Communication

Community Emergency Response Training